

Abstract

The present invention relates to a confocal microscope and the measuring methods of fluorescence and the polarized light using the same, and said confocal microscope is provided with the inlet optical part (10, 10') to let the polarized light from an illuminating light source (11) onto an object to be observed (2) via a matrix type liquid crystal device (22) provided with a microlens array (21) on its top part, and an objective lens (23), the light detecting part (30, 30') to detect the reflected or the fluorescent light from the object to be observed, and the liquid crystal control subpart (52) to control a liquid crystal device (22), and it transmits the light passing through said microlens array (21) from each microlens to each pixel (22a) of the liquid crystal device (22), and makes a plurality of foci (24) on the object to be observed (2) by the objective lens (23), as well as controls polarization directions of the lights transmitted through each pixel of the liquid crystal device (22) using the liquid crystal control subpart (52) so that they are made mutually orthogonal.